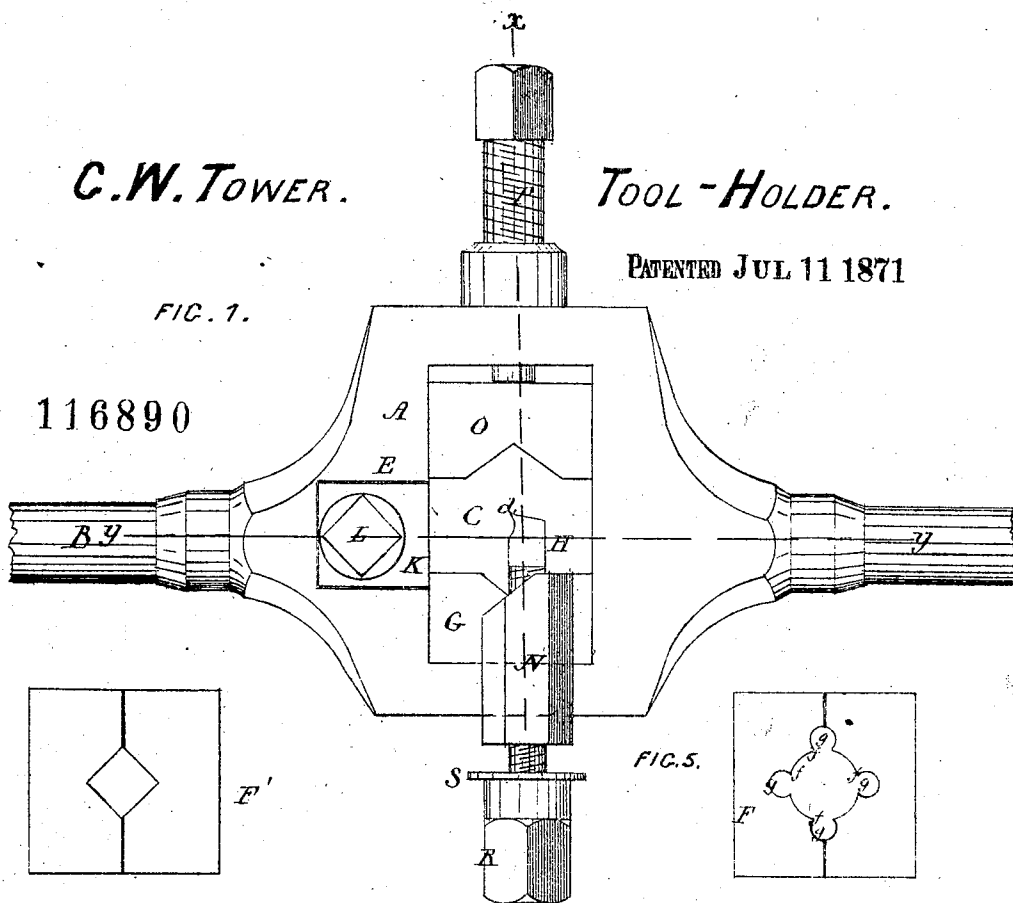


C.W. TOWER.

TOOL-HOLDER.

PATENTED JUL 11 1871

FIG. 1.



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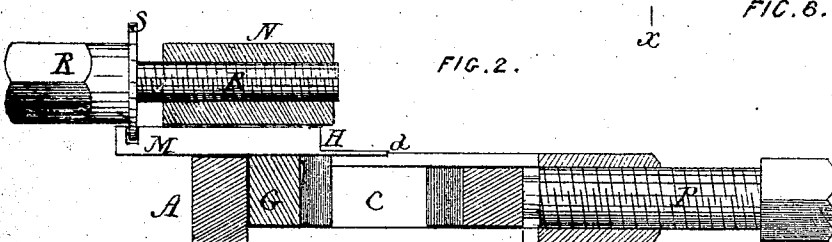


FIG. 2.

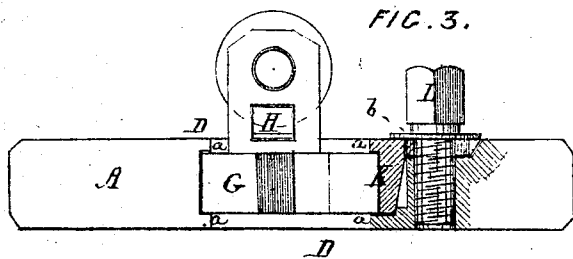


FIG. 3.

FIG. 5.

FIG. 6.

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GEORGE W. TOWER, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN PIPE-CUTTERS.

Specification forming part of Letters Patent No. 116,890, dated July 11, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. TOWER, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Tool-Holder; and that the following description, taken in connection with the accompanying drawing, is a full and complete specification of the same.

The invention consists of a frame or holder for receiving screw-cutting dies or other tools, constructed, as will be hereinafter described, to be opened and closed according as a die or tool is to be inserted or removed.

In the accompanying drawing my improvements in tool-holders are illustrated, Figure 1 being a plan or top view of the same; Fig. 2, a section in plane of line *x x*, Fig. 1; Fig. 3, a transverse section in plane of line *y y*, Fig. 1, Fig. 4, view of a die made in two parts, suitable for a wrench for tapping and other purposes; Fig. 5, view of a die made of two parts and suitable for cutting screw-threads; and Fig. 6, a face view of the cutting-side to one part of the screw-cutting die shown in Fig. 5.

A in the drawing represents the frame or holder. This frame A is constructed with handles B for convenience in turning or using it, and at its center C is left open, with the opening of a rectangular shape, and provided with flanges *a* around its sides and upon both faces D. At E of the rectangular opening C a portion of its side flange *a* is cut away (see Fig. 3 more particularly) so as to allow jam-dies F, Figs. 4, 5, and 6, or solid dies in substitution of them, or a block, G, carrying an arrangement of pipe-cutter bar, H, to be hereinafter described, or other blocks, adapted for other special purposes, to be inserted in or removed from the frame A. At the point E, where the opening C is cut away as stated, a closing-piece, K, of suitable shape (see Figs. 1 and 3) is inserted and secured in position through a set or thumb-screw, L, screwing into the frame A and passing through an elongated slot, *b*, in the closing-piece K. This arrangement of the closing-piece K enables it to be secured in position to close the cut-away portion E of the boundary to the opening C, or to be released and set one side

sufficiently, without necessarily detaching it, to permit the die-blocks, &c., to be inserted or removed at pleasure. The cutter-bar H, hereinbefore referred to, is arranged by its shank M to be moved in and out of a stanchion or post, N, forming a part of or attached to the block G, so as to bring its cutting-edge or point *d* to bear upon the pipe to be cut, and confined between the block G and the block O arranged within the frame A, and to be jammed against the pipe by and through a thumb or set-screw, P, working in the end Q of the frame A. R, a thumb-screw arranged to screw in and out of post N and, by and through a flange-rim, S, to interlock with the cutter-bar H for the purpose of forcing it in or drawing it out. The screw-cutting dies shown in Figs. 5 and 6 are, when placed together as in Fig. 5, adapted to cut a screw-thread, the two together making a complete die for such purpose. The cutting-points are at *f* and the points are in radial lines from the center or axis of the die. *g*, openings made of a circular shape for securing a more effective clearing of the die of the shavings removed from the pipe, tube, or rod on which they are working. F in Fig. 4 shows adjustable wrench-jaws adapted to fit in the holder A, and, having their V-shaped grooves cut at an angle less than a right angle, give securer hold upon objects turned by them than do right-angle grooves commonly used in similar wrench-jaws, and, furthermore, to give secure hold upon pipes, nuts, or irregular-shaped objects.

Having thus described my improvements in tool-holders, I shall state my claims, as follows:

The frame or holder A, constructed with an opening, C, having flanges *a* cut away at E, in combination with the closing-piece K applied to the holder A and secured thereto by set-screw L and with blocks O and G, the latter carrying cutting-tool H, substantially as described, for the purpose specified.

The above specification of my invention signed by me this 27th day of December, A. D. 1870.

GEO. W. TOWER.

Witnesses:

ALBERT W. BROWN,
DANIEL FLAHERTY.